UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/665,807	09/19/2003	Dan Adamson	2081.010US1	6636

21186	7590	10/11/2006

SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A.
P.O. BOX 2938
MINNEAPOLIS, MN 55402

EXAMINER
SHARON, AYAL I

ART UNIT	PAPER NUMBER
2123	

DATE MAILED: 10/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	10/665,807	ADAMSON ET AL.
	Examiner	Art Unit	
	Ayal I. Sharon	2123	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *19 September 2003*.

2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-11* is/are pending in the application.

  4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *1-11* is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on *19 September 2003* is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

  Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

  Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

  a) ☐ All b) ☐ Some * c) ☐ None of:

  1. ☐ Certified copies of the priority documents have been received.

  2. ☐ Certified copies of the priority documents have been received in Application No. _____.

  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

  * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

Introduction

1. Claims 1-11 of U.S. Application 10/665,807, filed on 09/19/2003, are currently

    pending.

2. The application claims benefit of U.S. Provisional Application 60/411,902, filed on

    09/19/2002.

Claim Rejections - 35 USC § 101

3. 35 U.S.C. 101 reads as follows:

    Whoever invents or discovers any new and useful process, machine, manufacture, or composition of
    matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the
    conditions and requirements of this title.

4. **Claims 1-7 are rejected under 35 U.S.C. 101 because the claimed invention**

    is directed to non-statutory subject matter.

5. The claims in the instant application are directed to an abstract idea. One may

    not patent every "substantial practical application" of an idea, law of nature or

    natural phenomena because such a patent "in practical effect be a patent on the

    [idea, law of nature or natural phenomena] itself." Gottschalk v. Benson, 409 U.S.

    63, 71-72, 175 USPQ 673, 676 (1972).

6. The instant claims also lack a concrete, useful, and tangible result.

7. The fundamental test for patent eligibility is to determine whether the claimed

    invention produces a **"useful, concrete and tangible result."** See State Street

Bank & Trust Co. v. Signature Financial Group Inc., 149 F. 3d 1368, 47 USPQ2d

1596 (Fed. Cir. 1998) and AT&T Corp. v. Excel Communications, Inc., 172 F.3d

1352, 50 USPQ2d 1447 (Fed. Cir. 1999). In these decisions, the court found that

the claimed invention as a whole must accomplish a practical application. That is,

it must produce a "useful, concrete and tangible result."

8. See State Street, 149 F.3d at 1373-74, 47 USPQ2d at 1601-02. ("[T]he

transformation of data, representing discrete dollar amounts, by a machine

through a series of mathematical calculations into a final share price, constitutes

a practical application of a mathematical algorithm, formula, or calculation,

because it produces 'a useful, concrete and tangible result' – a final share price

momentarily fixed for recording and reporting purposes and even accepted and

relied upon by regulatory authorities and in subsequent trades").

9. See also AT&T, 172 F.3d at 1358, 50 USPQ2d at 1452 (Claims drawn to a long-

distance telephone billing process containing mathematical algorithms were held

patentable subject matter because the process used the algorithm to produce a

useful, concrete, tangible result - a primary inter-exchange carrier ("PIC")

indicator - without preempting other uses of the mathematical principle).

10. The Examiner finds that the claims do not recite a concrete, useful, tangible

result.

Claim Rejections - 35 USC § 112

11. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

12. Claims 1-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

13. The van der Vet, P.E. article "Bottom-up Construction of Ontologies" (cited in the Conclusion section below, and in the accompanying PTO-892 form) teaches the following (see Section 1.1 on page 1): "The term 'ontology' is ambiguous. In the literature [1], no less than seven different interpretations have been identified. We will have to outline our own view." In light of this teaching, applicants' claims, which claim an 'ontological system', are ambiguous.

14. In addition, Claim 8 recites the limitation "during the submission process" in lines 3-4. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

15. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

16. The prior art used for these rejections is as follows:

    a. Raymond et al., U.S. PG-PUB 2005/0091601 A1. ("**Raymond**").

17. The claim rejections are hereby summarized for Applicant's convenience. The

detailed rejections follow.

18. Claims 1-11 are rejected under 35 U.S.C. 102(e) as being anticipated by

Raymond.

19. In regards to Claim 1, Raymond teaches the following limitations:

> *1. A method to process at least one document in a domain, the method*
> *including:*
>   *modeling the domain with a plurality of domain models using an*
> *ontological system;*
>   *representing each document as a collection of at least one domain*
> *model; and*
>   *populating the collection of the at least one domain model that are*
> *used to represent the document with values corresponding to properties of*
> *the document being represented.*

(See Raymond, especially: especially paragraphs [0024]-[0027] and [0037]-
[0038])

More specifically, Raymond teaches the following in the cited paragraphs:

[0024] **In developing the domain model 22**, the designer, for example,
develops a meta-ontology that specifies the general required structure and
vocabulary of the knowledge characterizing the designated domain, designs a
specific schema for the selected application of the user interfaces being
designed, **and then populates the schema** with the specific information,
relationships; and concepts pertinent to this schema. **The Resource
Description Framework (RDF) notation may be used to create the schema
and to populate it,** although any other schema specific notation may be used for
these purposes. Appendix A discloses an exemplary class hierarchy that may
structure a domain-independent architecture for such a framework.

[0025] **The RDF Specification is described in the documents "Resource
Description Framework (RDF) Model and Syntax Specification: W3C
Recommendation 22 Feb. 1999",** and "RDF/XML Syntax Specification
(Revised): W3C Working Draft 23 Jan. 2003", **both herein incorporated by
reference.** The domain model 22 created by the designer is stored in the
memory 18 so that it is available to the interaction design system 12 during its
execution on the computer 10.

[0037] **The following is an abbreviated example of an RDF document adhering to the IDS RDF Schema** for the task modeling 26 in the prescription drug ordering and filling application:

[0038] **As can be seen, this RDF document is only a partial example** for the prescription drug ordering and filling application and should be expanded to include other tasks to be performed by the users when using the interfaces being designed.

20. In regards to Claim 2, Raymond teaches the following limitations:

> 2.   *The method of claim 1, wherein a domain model relates to at least one of a simple type and a complex type, and:*
> *if a property for a domain model is of the simple type, populating the domain model with a value according to the document being represented; and*
> *if a respective property type for a domain model is of the complex type, selectively adding another domain model as the value for that property, according to the document being represented.*

(See Raymond, especially: especially paragraphs [0024]-[0027] and [0037]-[0038])

21. In regards to Claim 3, Raymond teaches the following limitations:

> 3.   *The method of claim 2, which includes:*
> *searching the collection of the at least one domain model to determine a subset of the at least one document which matches the search criteria.*

(See Raymond, especially: especially paragraphs [0024]-[0027] and [0037]-[0038])

22. In regards to Claim 4, Raymond teaches the following limitations:

> 4.   *The method of claim 2, which includes:*
> *analysis of the collection of the at least one domain model that represent a collection of documents by determining values of properties from at least one model:*

(See Raymond, especially: especially paragraphs [0024]-[0027] and [0037]-[0038])

23. In regards to Claim 5, Raymond teaches the following limitations:

> 5.   The method of claim 2, which includes:
> analyzing the collection of the at least one domain model that represents a
> collection of documents by determining what models are in the collection
> of documents.

(See Raymond, especially: especially paragraphs [0024]-[0027] and [0037]-
[0038])

24. In regards to Claim 6, Raymond teaches the following limitations:

> 6.   The method of claim 2, which includes:
> setting values in models that represent supplemental information that is
>   not in the document being represented but is associated to the
>   document being represented.

(See Raymond, especially: especially paragraphs [0024]-[0027] and [0037]-
[0038])

25. In regards to Claim 7, Raymond teaches the following limitations:

> 7.   The method of claim 2, wherein determining which models to use to
> represent the document and adding values to properties includes: an
> automated process whereby a list of conditions must be met in the
> document to populate a property with a value or set of values.

(See Raymond, especially: especially paragraphs [0024]-[0027] and [0037]-
[0038])

26. In regards to Claim 8, Raymond teaches the following limitations:

> 8. The method of claim 2, wherein the models selected to represent the
> document and the properties set in the models are determined by a
> person adding the document to a collection of documents during the
> submission process.

(See Raymond, especially: especially paragraphs [0024]-[0027] and [0037]-
[0038])

27. **Claims 9-11 are rejected based on the same reasoning as claim 1. Claims 9-**

11 are system and medium claims that recite limitations equivalent to those

recited in method claim 1 and taught throughout Raymond.

Conclusion

28. The following prior art, made of record and not relied upon, is considered pertinent to applicant's disclosure.

29. US. PG-PUB 2003/0226109 to Adamson et al. (A co-pending application by the same inventive entity as the instant application. Ineligible for use as prior art, because the filing date is within the one year grace period. See paragraphs [0021] to [0024]).

30. "Resource Description Framework (RDF) Model and Syntax Specification", W3C Recommendation. 22 February 1999. http://www.w3.org/TR/1999/REC-rdf-syntax-19990222/. (Incorporated by reference in paragraph [0025] of the Raymond reference used to reject the claims).

31. "Editor's Draft of RDF/XML Syntax Specification (Revised)." W3C Proposed Recommendation. 15 December 2003. http://www.dajobe.org/2001/07/rdf-syntax-grammar/. (Incorporated by reference in paragraph [0025] of the Raymond reference used to reject the claims. Note: too recent to qualify as prior art).

32. Huhns, M.N. and M.P. Singh. "Ontologies for Agents." IEEE Internet Computing. Nov./Dec. 1997. Vol.1, Issue 6, pp.81-83. (Includes a definition of "Ontology" on page 1).

33. van der Vet, P.E. and N.J.I. Mars. "Bottom-up Construction of Ontologies." IEEE Transactions on Knowledge and Data Engineering. July/Aug. 1998, Vol.10, Issue 4, pp.513-526. (Teaches that the term "ontology" is ambiguous. See page 1).

34. Hunter, J. "Enhancing the Semantic Interoperability of Multimedia Through a
Core Ontology." IEEE Transactions on Circuits and Systems for Video
Technology. Jan. 2003. Vol.13, Issue 1, pp.49-58. (Provides background info
about ontologies used in multi-media. Too recent to be applied as prior art).

Correspondence Information

Any inquiry concerning this communication or earlier communications from
the examiner should be directed to Ayal I. Sharon whose telephone number is
(571) 272-3714. The examiner can normally be reached on Monday through
Thursday, and the first Friday of a bi-week, 8:30 am – 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the
examiner's supervisor, Paul Rodriguez can be reached at (571) 272-3753.

Any response to this office action should be faxed to (571) 273-8300, or
mailed to:

    USPTO
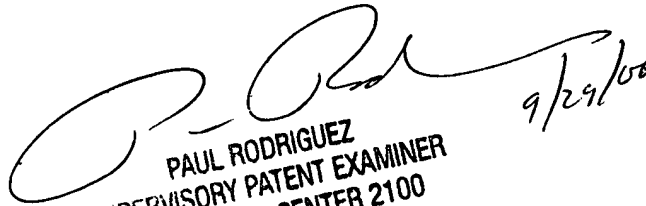   P.O. Box 1450
    Alexandria, VA 22313-1450

or hand carried to:

    USPTO
    Customer Service Window
    Randolph Building
    401 Dulany Street
    Alexandria, VA 22314

Any inquiry of a general nature or relating to the status of this application

or proceeding should be directed to the Tech Center 2100 Receptionist, whose

telephone number is (571) 272-2100.

Ayal I. Sharon
Art Unit 2123
September 28, 2006

PAUL RODRIGUEZ
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100